

Growing and shrinking patterns; predict the next terms

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES ALGEBRA

★ STRETCH PROBLEMS

- Mr Ó Sé stacks worksheets in the photocopier room in a pattern: 23, 33, 43, 53 in each growing pile. If the pattern keeps going, how many worksheets come next?
- Tadhg counts the pencils in the classroom store baskets. The first four baskets hold 5, 15, 25 and 35 pencils, going up by the same amount each time. How many pencils are in the next basket?
- Daithí is saving stickers on his reward chart each week. So far he has collected 30, then 39, then 48, then 57 stickers. If the pattern continues, how many stickers will he have next week?
- On the walk up to the Cliffs of Moher, Oisín counts the numbers painted on the wooden marker posts along the path: 23, 28, 33, 38. The numbers keep going up in the same pattern. What number comes next?
- At the Cumann na mBunscol blitz, the scoreboard adds the same number of supporters through the gates each match. So far it has shown 8, 20, 32 and 44. What number comes next in the sequence?

● INVESTIGATE

Invent a pattern

Create a number pattern with a clear rule. Write the first six terms, then challenge a partner to find the **rule** and predict the 10th term. Can you also make a growing pattern where the jump gets bigger each time?
